Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) ~~Method~~ A method for controlling a screening machine comprising at least one screen surface, feeding means that feed material to be screened towards the screen surface and onto the screen surface where the material is separated into a first fraction remaining on the screen surface and into a second fraction passed through the screen surface while the material is moving along the screen surface, ~~characterized~~ the method comprising:

~~in that~~ determining the amount of material on the screen surface ~~(6a) is determined~~ by automatic measurement, and

controlling the feeding speed of the feeding means ~~(5) is controlled~~ on the basis of the measurement by automatic control ~~(C)~~ in such a manner that the feeding speed is changed to a different feeding speed in one of the following ways:

—providing upper and lower preset values (val_{max}, val_{min}) for the measurement value (val_m) of a variable dependent on the amount of material on the screen ~~surface are used and~~ surface,

lowering the speed of the feeding means when the measurement value (val_m) passes one of the preset values, ~~the speed of the feeding means is lowered, and~~

increasing the speed of the feeding means when the measurement value (val_m) passes the other preset value, ~~the speed of the feeding means is increased,~~ or

—changing the speed of the feeding means when the speed of change of the measurement value (val_m) of the variable exceeds a preset value ~~($(\Delta val_m/\Delta t)_{max}$), the speed of the feeding means is changed.~~ ($(\Delta val_m/\Delta t)_{max}$).

2. (Currently Amended) ~~Method~~ The method according to claim 1, ~~characterized in~~ wherein determining ~~that~~ the amount of material on the screen surface ~~is determined by~~ comprises

measuring a variable of the movement of the screen surface or a variable of the drive means of the screen surface causing the movement of the screen surface.

3. (Currently Amended) ~~Method~~ The method according to claim 1, ~~characterized in~~ wherein determining ~~that~~ the amount of material on the screen surface ~~is determined~~comprises ~~by~~

measuring the load caused by the material on any ~~of the~~ processing ~~units~~ unit of the screening machine or on any machine following the screening machine and extending the process of the screening machine and being connected to the control system of the screening machine.

4. (Currently Amended) ~~Method~~ The method according to claim 2, ~~claim 2 or 3, characterized in that~~wherein measuring the load caused by the material on the screen ~~is measured~~comprises ~~by~~

measuring a variable of the screen drive means causing the transport or processing of the material on the screen surface.

5. (Currently Amended) ~~Method~~ The method according to claim 4, ~~characterized in~~wherein ~~that~~ the variable is a drive pressure, drive current or drive running speed.

6. (Currently Amended) ~~Method~~ The method according to claim 3, ~~characterized in~~ wherein ~~that~~ the processing unit is any of the following: a discharge conveyor, a shredder, or a crusher.

7. (Currently Amended) ~~Method~~ The method according to claim 6, ~~characterized in~~ wherein measuring ~~that~~ the load ~~is determined~~ comprises ~~by~~ measuring any of the following variables:

—drive pressure of the discharge conveyor, shredder or crusher,

—drive current of the discharge conveyor, shredder or crusher,

—running speed of the discharge conveyor, shredder or crusher.

8. (Currently Amended) ~~Method~~ The method according to claim 3, ~~characterized in~~ wherein ~~that~~ the machine following the screening machine and extending the process of the screening machine and being connected to the screening machine's control system is any of the following:

—a second screening ~~machine~~machine,

—a crushing ~~machine~~machine, or

—a conveying machine.

9. (Currently Amended) ~~Method~~ The method according to claim 3, ~~characterized in~~ wherein measuring ~~that~~ the load ~~caused by the material is determined by~~ comprises measuring the load ~~of the~~ on an engine caused by the material.

10. (Currently Amended) ~~Method~~ The method according to claim 3, ~~characterized in~~ wherein measuring ~~that~~ the load ~~caused by the material is determined by~~ comprises measuring the temperature of ~~the~~ a hydraulic fluid of ~~the~~ a hydraulic system.

11. (Currently Amended) ~~Method~~ The method according to claim 1, ~~any of the preceding claims, characterized in~~ further comprising presetting ~~that~~ a maximum speed and a minimum speed ~~are preset~~ for the feeding means.

12. (Currently Amended) ~~Method~~ The method according to claim 1, ~~any of the preceding claims, characterized in~~ further comprising:

providing a predetermined maximum time (t_{max}) for the measurement value (val_m) to be beyond the preset value; and

lowering the speed of the feeding means below a preset speed value ~~that~~ when the measurement value (val_m) has been beyond the preset value for a period that exceeds ~~a~~ the

predetermined maximum time ~~(t_{max}), the speed of the feeding means is lowered below a preset value.~~(t_{max}).

13. (Currently Amended) ~~Method~~ The method according to claim 12, ~~characterized in~~ further comprising stopping ~~that~~ the feeding means ~~are stopped.~~ when the measurement value (val_m) has been beyond the preset value for the period.

14. (Currently Amended) ~~Screening~~ A screening machine comprising at least one ~~screening~~screen ~~surface (6a),~~surface, feeding means ~~(5)~~ arranged to feed material to be screened towards the screen surface and onto the screen surface, the screen surface being capable of separating the material into a first fraction ~~(F1)~~ remaining on the screen surface ~~(6a)~~ and into a second fraction passed trough the screen surface while the material is moving along the screen surface, the screening machine further ~~comprising sensors measuring the state of the screening process, characterized in that~~comprising:

—a sensor ~~(S) is~~ arranged to measure a variable dependent on the amount of material on the screen surface;

—a controller ~~(C)~~ to which said sensor ~~(S)~~ is connected through a data transmission line to receive a measurement value (val_m) related to said variable from the sensor; and

—an actuator ~~(A)~~ operatively connected to the feeding means and arranged to change the feeding speed of the feeding means; ~~whereby~~wherein

said controller ~~(C)~~ is connected to said actuator ~~(A)~~ through a data transmission line and arranged to give a control command to said actuator in response to the measurement value (val_m) received from the sensor ~~(S)~~ to change the feeding speed of the feeding means to a different feeding speed in one of the following ways:

—an upper preset value (val_{max}) and a lower preset value (val_{min}) for the measurement value (val_m) are programmable and changeable in the controller ~~(C)~~ and the controller

is arranged to give a speed reducing control command to the feeding means when the measurement value (val_m) passes one of the preset values (val_{max}, val_{min}), and a speed increasing control command when the measurement value passes the other preset value, or

—a preset value ($(\Delta val_m/\Delta t)_{max}$) for the speed of change of the measurement value (val_m) is programmable and changeable in the controller ~~(C)~~ and the controller is arranged to give a speed changing control command to the feeding means when the speed of change exceeds the preset value ($(\Delta val_m/\Delta t)_{max}$).

Notice of Non-Compliant Amendment (37 CFR 1.121)	Application No.	Applicant(s)	
	10/522,177	ANTILA ET AL.	
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